(1) GENERAL INFORMATION:

(i) APPLICANT: Simons, Michael

Gao, Youhe

(ii) TITLE OF INVENTION: Method for PR-39 peptide regulated stimulation of angiogenesis ${}^{\circ}$

(iii) NUMBER OF SEQUENCES: 14

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: David Prashker, Esq.

(B) STREET: P.O. Box 5387

(C) CITY: Magnolia

(D) STATE: Massachusetts

(E) COUNTRY: USA

(F) ZIP: 01930

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Diskette, 3.50 inch, 1.40 Mb storage

(B) COMPUTER: Dell Dimension PC

(C) OPERATING SYSTEM: MS DOS

(D) SOFTWARE: Microsoft Word Version 97

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: 09/426,011

(B) FILING DATE: October 25, 1999

(C) CLASSIFICATION: Unknown

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: David Prashker, Esq.

(B) REGISTRATION NUMBER: 29,693

(C) REFERENCE/DOCKET NUMBER: BIS-043/CIP

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (978) 525-3794

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro 1 10 15

Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro 20 25 30

Arg Phe Pro Pro Arg Phe Pro 35

(2) INFORMATION FOR SEO ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro 1 10 15

Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro 20 25 30

20 Arg Phe Pro Pro Arg Phe Pro

35

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid



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(C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3: Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro (2) INFORMATION FOR SEQ ID NO:4: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 11 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single
(D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg 5 (2) INFORMATION FOR SEQ ID NO:5: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 8 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5: Arg Arg Pro Arg Pro Pro Tyr (2) INFORMATION FOR SEQ ID NO:6: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 39 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6: Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro 10 Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro 20 25 Arg Phe Pro Pro Arg Phe Pro (2) INFORMATION FOR SEQ ID NO:7: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 11 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7: Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg 5 (2) INFORMATION FOR SEQ ID NO:8: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 255 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single (D) 'TOPOLOGY: linear : (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8: Met Ser Ser Ile Gly Thr Gly Tyr Asp Leu Ser Ala Ser Thr Phe Ser Pro Asp Gly Arg Val Phe Gln Val Glu Tyr Ala Met Lys Ala Val Glu 20 25 Asn Ser Ser Thr Ala Ile Gly Ile Arg Cys Lys Asp Gly Val Val Phe 40 45 Gly Val Glu Lys Leu Val Leu Ser Lys Leu Tyr Glu Glu Gly Ser Asn Lys Arg Leu Phe Asn Val Asp Arg His Val Gly Met Ala Val Ala Gly 70 75 Leu Leu Ala Asp Ala Arg Ser Leu Ala Asp Ile Ala Arg Glu Glu Ala Ser Asn Phe Arg Ser Asn Phe Gly Tyr Asn Ile Pro Leu Lys His Leu 100 105 Ala Asp Arg Val Ala Met Tyr Val His Ala Tyr Thr Leu Tyr Ser Ala 115 120 125 Val Arg Pro Phe Gly Cys Ser Phe Met Leu Gly Ser Tyr Ser Ala Asn 135 140 150 155

Asp Gly Ala Gln Leu Tyr Met Ile Asp Met Ser Gly Val Ser Tyr Gly 160 Tyr Trp Gly Cys Ala Ile Gly Lys Ala Arg Gln Ala Ala Lys Thr Glu 170 Ile Glu Lys Leu Gln Met Lys Glu Met Thr Cys Arg Asp Val Val Lys

.180 185 Glu Val Ala Lys Ile Ile Tyr Ile Val His Asp Glu Val Lys Asp Lys

200 Ala Phe Glu Leu Glu Leu Ser Trp Val Gly Glu Leu Thr Lys Gly Arg

215 220

His Glu Ile Val Pro Lys Asp Ile Arg Glu Glu Ala Glu Lys Tyr Ala 230 235

Lys Glu Ser Leu Lys Glu Glu Asp Glu Ser Asp Asp Asn Met 245 250

(2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 4 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Ala Glu Arg Asp

- (2) INFORMATION FOR SEQ ID NO:10:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1 amino acid
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Ala

- (2) INFORMATION FOR SEQ ID NO:11:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 24 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Lys Lys His Glu Glu Glu Ala Lys Ala Glu Arg Glu Lys Lys Glu 10 Lys Glu Gln Lys Glu Lys Asp Lys

- (2) INFORMATION FOR SEQ ID NO:12:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 16 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single

 - (D) TOPOLOGY: linear
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Glu Lys Glu Lys Glu Glu Asn Glu Lys Lys Lys Gln Lys Lys Ala Ser 10

- (2) INFORMATION FOR SEQ ID NO:13:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 27 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

Glu Glu Arg Pro Gln Arg Lys Ala Gln Pro Ala Gln Pro Ala Asp Glu 10 Pro Ala Glu Lys Ala Asp Glu Pro Met Glu His 20

- (2) INFORMATION FOR SEQ ID NO:14:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 16 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Ala Lys Glu Ser Leu Lys Glu Glu Asp Glu Ser Asp Asp Asp Asn Met